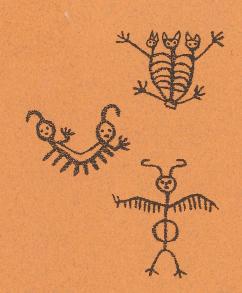


EDUCATIONAL RESOURCES



Oregon Archaeological Society

AMERICAN INDIAN ROCK ART IN OREGON AND THE PACIFIC NORTHWEST





Winter 2008



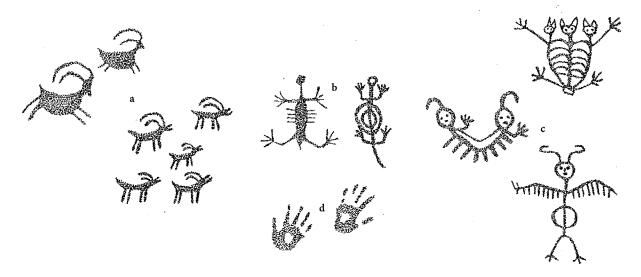
Introduction

The purpose of this document is to introduce the reader to rock art made in Oregon and the Pacific Northwest by American Indians and to provide a basic understanding of the subject. Books and online resources that offer greater detail on this subject can be found in the *Reading List* and *Website List* on pages 9-12. This document was developed by the following volunteers of the Oregon Archaeological Society's Education Committee: Mark Fitzsimons, Robin Harrower, and Dennis Torresdal. Special thanks to the personal contributions of Dr. James Keyser (US Forest Service archaeologist, noted rock art authority, and OAS President, 2005), and his permission to use information from his books, *Indian Rock Art of the Columbia Plateau* and *Plains Indian Rock Art*. All examples shown in this document are smaller than the real images. The images in this document are reduced photocopies of life-sized stippled or line drawings of the actual rock art.

About the Oregon Archaeological Society

The Oregon Archaeological Society (OAS) offers opportunities for the public to study and preserve archaeological material found in Oregon. For many years, OAS volunteers have assisted professional archaeologists on the study and recording of rock art images, and educating the public on these important archaeological artifacts. We encourage you to become a member of OAS and learn more about this subject and other OAS activities.

Special Note: Rock art is part of our cultural heritage and everyone must be mindful of the need to preserve these images. Please be advised that making rubbings of rock art, surface collecting or excavating of prehistoric and historic artifacts from public and private lands is illegal, unless conducted under the supervision of an archaeologist with a permit from the State Historic Preservation Office (SHPO). Individuals must abide by all local, state and federal laws governing archaeological excavation, and the collection, acquisition or sale of artifacts. Please assist OAS by reporting any threats, or acts of destruction to possible prehistoric and historic archaeological sites by contacting either OAS (see below), or the State Historic Preservation Office (SHPO) at (503)986-0674, or visit their website: egov.oregon.gov/OPRD/HCD/ARCH/contact_us.shtml.



Examples of rock art found within Oregon. Animals such as mountain sheep (a) and lizards (b) are very common images, as are mythical beings (c). Although found throughout the world, hand prints (d) are much less common in Oregon.

Oregon Archaeological Society, P.O. Box 13292, Portland, Oregon 97213. www.oregonarchaeological.org

· Rock art

Rock art is described as images carved or painted on stone, by indigenous people. In Oregon, many rock art images are of real or mythical creatures, and/or geometric and abstract designs. Recent research indicates that much of this rock art is the result a Indian peoples' expression of their vision-questing, hunting magic (to invoke, or summon the spirits of animals), fears and warnings, and shamanism (Figures 1 and 2.)

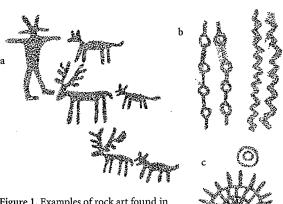


Figure 1. Examples of rock art found in Oregon: (a) dogs and human figure driving deer, (b) abstract designs and (c) human with rayed arc, possibly an example of vision-questing.

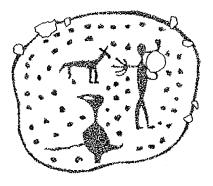


Figure 2. Example of vision-questing rock art found within the Columbia Plateau region. Typical of this imagery is the use of a painted circle with images placed inside. A pipe-smoking man iillustrates the use of native tobbaco in religious rituals.

Another type of rock art less common in Oregon, but found elsewhere in the US, is described as ceremonial and/or biographical, such as that of the Plains Indians (Figure 3.) The difference? Biographical rock art tells a story that, even if observed today, can be understood as battle scenes, or tribal gatherings and celebrations. Whereas, most rock art found in Oregon is not as readily understood by the casual observer. Most of the rock art images here tell no narrative story. More investigative work was required to understand some of the underlying meaning of these rock art



Figure 3. Biographical rock art from a site at Writing-On-Stone, Alberta, Canada, illustrates a complex scene of weapons, warriors, horses and other images that combine to tell an elaborate story of a battle (from pg. 224 of *Plains Indian Rock Art.*)

symbols.

Rock art is found throughout Oregon, from rock outcrops of southeastern Oregon, to the Pacific Coast, along canyons and river beds, in forests, and the central high desert. But one of the greatest concentrations of rock art is found along the Columbia River area. This rock art is the primary subject of this document.

Rock art and the Columbia River Gorge

The archaeological record indicates that for at least the last 3,000 years, the area between The Dalles (in Oregon) and the Tri-Cities (in Washington) was a busy trade area between vast numbers of tribal people from around the entire western US. The Dalles location, in particular, was the scene of a tremendous salmon fishery. During the salmon migrations this area attracted thousands of visitors. Given the large numbers of native people that visited this area over thousands of years, it is reasonable to assume that the density of rock art images found there has a direct connection to the thousands of people who lived in, or traveled through, this area and their cultural and spiritual beliefs.

Current research indicates that spirituality was deeply important among these people, in particular the idea of guardian spirits. It is now understood that these tribal groups believed in a connection with their surrounding environment: that the spirit world existed within the basalt rock features found there, and that it could be accessed by some tribal members through fasting and prayer (Figure 4.)

Further evidence indicates that rock art observed along the Gorge can be divided into two

broad categories: private and public. The location and nature of images that are considered private were clearly intended for only the individual that

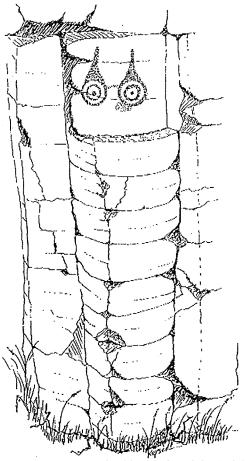


Figure 4. An impressive example of the use of a rock face in defining the features of the rock art. Referred to as a "snake", this rock art image has a close association with a specific mythology of the Columbia Plateau. The eyes are about 10cm in diameter, but the basalt column is more than one meter (3 feet) high.

created them. They tend to be small images, located in protected settings out of the view of most passersby.

Public images are large, located in prominent places, and often very colorful. Many public images are speculated to have been warnings, or to identify important mortuary and/or spiritual areas. Again, most of these interpretations are based on ethnographies (the study and recording of native peoples' culture, history, religion and/or mythology) and interviews with native people who lived along the Columbia River.

Although rock art can still be readily observed along the Columbia River, many of these images



Figure 5. Tsagiglalal, the famous "She Who Watches" may be one of the finest examples of public rock art. This image, found in Columbia Hills State Park, measures roughly a meter (3 ft.) wide.

are now lost due to the construction of dams in the 1940s and 1950s.

American Indians in Oregon

Native people have lived in Oregon and the Pacific Northwest for at least the last 12,000 years. Over that time, they evolved from a hunting, nomadic life to the establishment of villages; in some areas with ranked societies, including hereditary chiefs. About 3,500 years ago permanent villages developed along the Columbia River.

When the first explorers and fur traders, followed by the settlers, arrived in Oregon, the land was already home to more than thirty Indian Tribes. Along the Columbia River from Portland to the coast were The Chinook, Clatsop and Multnomah tribes. Further upstream were found the Klickitats, Wasco, Tenino and Wishram tribes. In northeastern Oregon lived the Umatilla, Cayuse and Nez Perce.

The Willamette Valley was home to several Calapooya tribes, and the Mollalas. Southwestern Oregon tribes included the Umpquas, Cow Creeks, Takelma and the Shasta.

Along the Oregon coast could be found the Tillamook, Alsea, Coos, Lower Umpqua and Chetco tribes. And roaming the High Desert and Klamath Basin of Oregon were several bands of Northern Paiute, the Klamath and the Modoc. (Please refer to the *Reading List* at the end of this document for sources that go into greater detail on tribes of Oregon and the Pacific Northwest.)

Some rock art can be specifically associated with certain tribes based on ethnographic information, and other rock art can be marginally stylistically associated with broad tribal groupings (e.g. Northern Paiute), however, most rock art cannot be linked to any specific tribal group.

How rock art was made

There are two main types of rock art: *pictographs* and *petroglyphs*. Pictographs are images painted on rock, and petroglyphs are carved into the rock surface. A few glyphs are combination pictographs and petroglyphs. Most of the rock art along the Columbia river and throughout eastern Oregon is found on basalt rock.

Pictographs involve the use of colored pigments. Pigments used in Oregon and Pacific Northwest pictographs were primarily red, black, and white. To a lesser extent yellow and green pigments were also used. The reds, oranges and yellows came from local deposits of iron oxides (hematite and limonite.) Black came from mostly coal, while white came from certain clay deposits. Green and blue-green pigments originated from copper oxide.

Pigments were first ground into powder and then mixed with various "binding" agents (water, urine, saliva, blood, eggs, fats, plant juices, etc.) They were then painted upon the rock face with fingers, or tools such as improvised animal hair brushes, sticks or twigs.

Research indicates that red and white pigments were used for their spiritual significance. Red pigment represented blood, or life giving forces. Whereas white, associated with the whiteness of bones, was considered to represent death or, possibly, the spirit realm.

Petroglyphs were formed through pecking, or scratching, a rock face. With a harder hammerstone scraping, rubbing or grinding would also carve images onto stone. By scratching a rock in this manner the weathered surface, or patina, of a rock face would be removed to show a lighter layer below. This action would cause the image to stand out from the rest of the rock's surface.

Who made rock art and why

Although some connections may be made to the tribes of the 17th and 18th centuries, not all of the rock art presently known can be specifically associated with certain groups of modern native people.

Archaeological and historical research indicates

that the religions of people living along the Columbia River during the last 3,500 years emphasized a personal guardian spirit. According to ethnological information, to interact with that spirit required an individual to spend several days fasting and praying in remote locations. This allowed an individual to contact the spirit world. Depending on the individual vision, the spirits could take the form of animals, plants, birds, reptiles or celestial objects.

These personal and private quests served various purposes. Most were related to coming of age for young men and women. These are referred to

as vision-quests. Sometimes these resulted in rock art that recorded the spiritual experience or identified a sacred place. Many of these images were private in their placement and size, and not intended for others to see.

Some rock art clearly indicates *hunting magic*. These particular images may have been

ages may have been made as a prelude to a

The second secon



Figure 6. Example of rock art images identified as pictures of women during their guardian spirit quests.

hunt; a way to encourage game to come to the hunter, or to give the hunter strength. Some evidence indicates the art allowed the hunter to capture the spirit of the animal to be hunted. A hunter on such a quest could also make offerings to the animal in hopes of redressing the need for food, and ensuring that the animal spirits would



Figure 7. Rock art from along the Columbia river that represents hunting magic.

continue to provide food and other materials to the people.

For at least the last 2,000 years, shamans were prominent members of tribes in the Pacific Northwest. We know of their existence from ethnological records and from *shamanic* rock art found along the Columbia River.

The shaman's function within the tribal societies was complicated. They were a combination of doctor, teacher, sorcerer, soothsayer and translator of messages between the natural and the spirit worlds.

Shamans held a position in the tribal society that was revered generally and sometimes reviled specifically. They were trained from an early age to communicate with the spirit world and to aid their fellow tribesmen in time of need. Need could come in the form of sickness, infertility, revenge, a bad hunting season, or in the death of a tribal member. The shaman's job was to communicate with the spirit world and problem solve. When they successfully alleviated a problem they were often rewarded. If their attempts failed, they were sometimes punished. But above all, their connection to the spirit world was crucial to the tribe. It was believed that shamans could interpret and control the spirit world and, at times, aid others in their spiritual quests. To be a



Figure 8. The birth of twins was associated with shamanistic power. Within the Columbia plateau there are many "twin" rock art images.

shaman was to be a very high ranking member of a tribe. And among the Columbia River tribes, being a shaman was not limited to men. Women served as shamans as well.

Rock art styles

Within the lower Columbia river area more than 160 rock art sites have been found. Most are found along the Columbia river, particularly in the Dalles and The Tri-Cities areas. However, significant sites have also been found along the Deschutes, Yakima, and John Day rivers.

Analysis of these images indicates that although there are important similarities, there are significant differences allowing them to be grouped into different styles within what is called the Columbia Plateau rock art tradition. Individual styles include the Yakima Polychrome, the Long Narrows, the North Oregon Rectilinear, the Central Columbia Plateau and Pit and Groove. (Note: The names assigned to these rock art styles were given by archaeologists and historians who found specific patterns in character of these images across the Columbia plateau landscape. These categories were not named by tribal groups.)

The *Yakima polychrome* style consists primarily of red and white pictographs of faces with rayed arcs and rayed circles (see Figure 9.) Yakima polychrome images are believed to have originated in The Dalles area and spread out from there. It is

estimated these images date from 250 to 1250 years ago.

The Long Narrows style, given its name for an area along the Columbia River (that was a dangerously narrow, treacherous area to maneuver but is now covered by water from The Dalles dam), in-

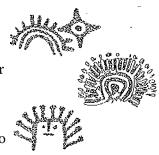


Figure 9. Yakima polychrome rock art images.

cludes pictographs and petroglyphs of grinning faces, abstract images, elaborate rayed circles, and

abstract human and animal forms with eyes, ribs and internal organs. Many of these images are believed to represent mythical creatures. One of the most famous examples of this style is Tsagiglalal, "She Who Watches (see Figure 5, pg. 3.)

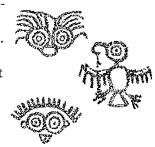


Figure 10. Long narrows style rock art images found in the Columbia Plateau

Long Narrows rock art is considered to be fairly recent, made within the last 200 to 1,000 years, with the most complex de-

signs occurring between 200 and 500 years ago.

In the *North Oregon Rectilinear* style simple stick figure humans, animals, lizards, tallymarks and other abstractions are characteristic of this style (see Figure 11.) Most are red-colored pictographs. Research shows that these images may have spanned a longer period of time than the other styles. Some estimates indicate that these images were made between 100 and 3,000 years

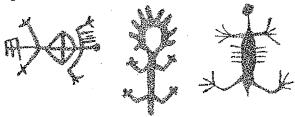


Figure 11. North Oregon Rectilinear style pictographs of lizards found along the lower Columbia river.

The Central Columbia Plateau style includes many stick figure humans, simple rayed arcs and circles and animals. Some horses with riders are found in this style, as well as thunderbirds, sheep

and deer. The age of this style is thought to be quite old, possibly 2,000 years ago or so. Yet, it is also thought to have been only recently discontinued as some of this rock art shows mounted riders Plateau stye rock art hunting and guns.



Figure 12. Central Columbia

The *Pit and Groove* style, is found primarily along the lower Columbia and Snake rivers. The pits and grooves forming patterns on rock surfaces seems to belong to the rock art tradition within the Great Basin area of southwestern Ida-

ho, Utah and Nevada. It is speculated to have come to the Columbia Plateau area from these

southern areas.



Figure 13. Pit & Groove style rock art found on a boulder along the lower Columbia river (Digitally enhanced image of a photograph..)

Although the ages of these images are not known for certain, it is suggested that they may be quite old, more than 3,000 years.

Types of rock art images

The rock art images fall into the following types:

Animals - birds, sheep, elk, deer (may be part of hunting-magic scenes), snakes, dogs, horses, lizards. Salmon, though important as food for local tribes, were drawn only rarely in rock art.

Humans - stick figures, hunters with bows, human figures with overhead rayed arcs. These illustrate shamanism, vision questing and guardian spirit assistance.

Mythical creatures - many different types of images in this group from water spirit images found along the Columbia river probably warning of the hazardous nature of the river to "She Who Watches", to monster-like lizards, etc.

Geometrics & abstractions - zig-zag lines, circles, squares, diamonds, dashes, parallel lines and dots. These images are associated with vision-questing and shamanism.



Figure 14. Antelope, and deer are very common rock art images.



Figure 15. Three examples of human figures in Oregon rock art.



Figure 16. This water spirit is a well known image, warning of water hazards along the Columbia. River..

Determining the age of the rock art

Dating the age of individual rock art can be difficult. If certain images are present, such as a bow and arrow, then it is possible to estimate that art to be within 2,000 years of the present time. We



Figure 17. Geometric designs similiar to these are found throughout Oregon rock art sites.

know from other archaeological information that the bow and arrow didn't arrive on this side of the continent until 2,000 BP.

Prior to research done in the 1970s, scholars believed that all pictographs were very recent, (made within the last few hundred years), because it was believed that the pigments used by the American

Indians would not hold up over a long time. However, many photographs of rock art from 100 years ago show that little or no fading has occurred when compared to the images today. This has lead researchers to believe that fading can occur, but probably over a much greater period of time.

Further research on pictographs shows that the pigments actually stain the rock surface and end up becoming part of the rock. In addition to the staining, rain water, and/or water seepage can react with elements in the rock to form a transparent film (actually a mineral deposit), that further protects the rock art for hundreds, if not thousands, of years. Current evidence indicates that the antiquity of a pictograph can go back quite a long time.

For now, it is possible to establish the relative age of rock art by its:

- 1. Association with dated archaeological deposits. For example, a rock face of deeply carved abstract petroglyphs near Long Lake, Oregon was partially covered by ash from the explosion of Mount Mazama approximately 6,700 years ago. As these petroglyphs were covered with this ash, this unusual rock art must predate 6,700 years BP (before the present time.)
- 2. Association with dated portable art. Along the middle Columbia Plateau, archaeologists have uncovered stone and bone sculptures of human and animal forms. Many of these images bear a

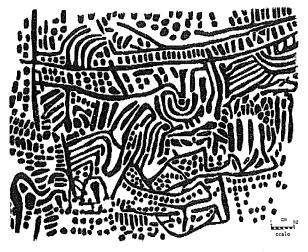


Figure 18. Carved abstract rock art found near Long Lake, Oregon. Source: Archaeology of Oregon, by C. Melvin Aikens, US Department of the Interior, Bureau of Land Management, 1993.

resemblance to rock art found in the same area. As some of these portable art forms were carved on bone or wood it is possible to carbon-date these images. These dates can then be applied to similar rock art images located near the sites where the portable art were discovered.

3. Subject matter. Some rock art may include images that are of a known time period. If images include bow and arrow, horses, guns, or European Americans, relative dates can be assigned to this rock art. Rock art images of horses, for example can be reliably dated to after 1700, as it is known they were introduced from Spanish settlements in

New Mexico about that time. Other archaeological information has shown that the bow and arrow arrived approximately 2,000 years BP. Before that, a spear throwing device called an atlatl was the preby American Indians.



Figure 19. In this petroglyph two features will help to date the imdominant weapon used age: the horse and the gun held by

- 4. Superposition of designs. When one design is carved or painted over another, the relationship shows that the overlying design must be more recent than that over which it was drawn.
- 5. Patination. Making a petroglyph requires that small chips, scratches or gouges be made to a rock surface. This takes away the dark "patina", or varnish that forms on the rock surface. This rock varnish is formed by a chemical reaction with the atmosphere, the rock surface, the air temperature, and possibly organisms (bacteria, lichens and moss.) It takes a long time to develop such a patina but it begins to develop again as soon as it is removed.

Sometimes it is possible to compare the color of several petroglyphs and determine a relative age based on the amount of revarnishing that has occurred. Those images that are older are darker because the varnish has had a longer time to reappear.

6. Weathering. A less reliable way to relatively date rock art is weathering. Weathering is an important force upon rock art but currently its full effects are not known.

Rock art preservation

The ongoing study of rock art in Oregon and elsewhere around the world has revealed a rich heritage of ancient peoples' desire to communicate. In viewing these images, a quote by Abraham Lincoln illustrates the connection we have to those who painted and carved these images, when he said,

"Writing is the great invention of the world . . . enabling us to converse with the dead, the absent, and the unborn, at all distances of time and space."

Whether or not Lincoln knew about rock art, his idea certainly holds true when we view these images on stone. These people left us pictographs and petroglyphs rich with information. It was clearly meant to convey something, be it warnings, events, or spiritual meaning. Whatever the purpose, the makers were recording information as best they could in their time and place. Most likely to record something of great significance to themselves, or to those coming after them.

If we can appreciate that their rock art images were important to them, then we can also understand that preserving this rock art is as important as preserving the literature and art of our time.

Efforts are underway today to protect and preserve rock art sites in Oregon, the US and around the world. If you are interested in learning more about opportunities to study and preserve these images, please visit the following websites for specific information:

- 1. www. oregonarchaeological.org Oregon Archaeological Society's website
- 2. www.oregon.gov/ODOT/HWY/GEOENVI-RONMENTAL/archaeology.shtml Oregon Department of Transportation's archaeology website.
- 3. www.passportintime.com Passport in Time, the US Department of the Interior, Forest Service volunteer archaeology program.

If your travels take you to areas where rock art is found, spend time viewing, drawing or photographing it. But please be sure to leave it undisturbed so that others may also experience the art of people who lived here over the last ten thousand years.



Figure 20. Considered to be an old rock art image because the stick man on the right may be using an atlatl. This indicates these images may be more than 3,000 years old.

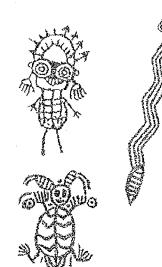


Figure 21. Three examples of mythical beings found along the Columbia river area. Most of the mythical beings are part of the Long Narrows rock art style.

ROCK ART READING LIST

The materials listed below include some of the references used for this document as well as other books educators may find useful when developing lesson plans on rock art. The books listed below are at the adult reading level unless otherwise noted. All of these books should be readily available through most book stores and libraries, and/or the Oregon Archaeological Society.

Oregon and Pacific Northwest

Archaeology of Oregon, by C. Melvin Aikens. Bureau of Land Management, U.S. Department of the Interior, 1993.

Columbia Plateau Rock Art - The Butte Creek Sites: Steiwer Ranch and Rattlesnake Shelter and Owl Cave, by James D. Keyser, et al. Oregon Archaeological Society Publication Number 11, 1998.

Echos of the Ancients: Rock Art of The Dalles-Deschutes Region, by James D. Keyser, Michael Taylor, and George Poetschat. Oregon Archaeological Society, 2004.

Handbook of North American Indians, Volume 7, Northwest Coast, William C. Sturtevant, general editor. Smithsonian Institute, Washington, DC, 1990.

Handbook of North American Indians, Volume 8, California, R. F. Heizer, 1978, general editor. Smithsonian Institute, Washington, DC, 1990.

Handbook of North American Indians, Volume 11, Great Basin, A. Ortiz, general editor. Smithsonian Institute, Washington, DC, 1986.

Handbook of North American Indians, Volume 12 Northern Plateau, Warren L. D'Azevedo, general editor. Smithsonian Institute, Washington, DC, 1978.

Indian Petroglyphs of the Columbia Gorge: The Jeanne Hillis Rubbings, by James D. Keyser. J.Y. Hollingsworth Company, 1994.

Indian Rock Art of the Columbia Plateau, by James D. Keyser. University of Washington Press, 1997.

Oregon Indians: Culture, History & Current Affairs, by Jeff Zucker, Kay Hummel & Bob Hogfoss. Oregon Historical Society Press, 1986-87.

Stone Age on the Columbia River, by Emory Strong. Metropolitan Press, 1959.

Talking with the Past: The Ethnology of Rock Art, Edited by James D. Keyser, George Poetschat and Mike Taylor. The Oregon Archaeological Society, 2006.

Wakemap Mound: A Stratified Site on the Columbia River. Oregon Archaeological Society, 1954.

United States

A Field Guide to Rock Art Symbols of the Greater Southwest, by Alex Patterson. Johnson Printing Company, 1992.

A Guide to Rock Art Sites: Southern California and Southern Nevada, by David S. Whitley. Mountain Press, 1996.

Ancient Visions: Petroglyphs and Pictographs of the Wind River and Bighorn Country, Wyoming and Montana, by Julie E. Francis and Lawrence L. Loendorf. University of Utah Press, 2002.

Handbook of Rock Art Research, by David S. Whitely (editor). Rowan & Littlefield, 2001.

Hawaiian Petroglyphs, by J Halley Cox. Bishop Museum Press, 1970.

Images in Stone:Petroglyphs and Photographs, by Polly Schaafsma and David Muench. Browntrout Publishers, 1995.

ROCK ART READING LIST

Indian Rock Art of the Southwest, by Polly Schaafsma. University of New Mexico Press, 1986.

Picture Rocks: American Indian Rock Art in the Northeast Woodlands, by Edward J. Lenik. University Press of New England, 2003.

Plains Indian Rock Art, by James D. Keyser & Michael A. Klassen. University of Washington Press, 2001.

Rock Art of the American Indian, by Campbell Grant. Vistabooks, 1992.

The Art of the Shaman: Rock Art of California, by David Whitley. University of Utah Press, 2000.

The Five Crows Ledger: Biographic Warrior Art of the Flathead Indians, by James D. Keyser. University of Utah Press, 2000.

The Rock Art of Utah: A Study from the Donald Scott Collection, by Polly Schaafsma. University of Utah Press, 1994.

Warrior Art of Wyoming's Green River Basin: Biographic Petroglyhs along the Seedskadee, by James D. Keyser and George Poetschat. Oegon Archaeolgoical Soceity, 2005.

<u>International</u>

African Rock Art: Paintings and Engravings on Stone, by Alec Campbell. Harry N. Abrahms, 2001

Australian Rock Art: A New Synthesis, by Robert Layton. Cambridge University Press, 1992.

Cave Beneath the Sea, Jean Clottes and Courtin Clottes. Harry N. Abrahms, 1996.

Chauvet Cave: The Art of Earliest Times, by Jean Clottes, Paul G. Bahn (translator). University of Utah Press, 2003.

Dawn of Art: The Chauvet Cave. The Oldest Known Paintings in the World, by Jean-Marie Chauvet, Eliette Brunel Deschamps and Christian Hillaire. Harry N. Abrams Inc., 1996.

Journey Through the Ice Age, by Paul G. Bahn and Jean Vertut. University of California Press, 2001.

Making Silent Stones Speak, by Kathy D. Schick and Nicholas Toth. Simon & Schuster, 1994.

Prehistoric Art: the Symbolic Journey of Humankind, by Randall White. Harry N. Abrahms, 2003.

Shamans of Prehistory, by Jean Clottes. Harry N. Abrahms, 1998.

Smithsonian Timelines of the Ancient World: A Visual Chronology from the Origins of Life to AD 1500, by Chris Scarre. Dorling Kindersely, 1993.

The Cambridge Illustrated History of Prehistoric Art, by Paul G. Bahn. Cambridge University Press, 1997.

The Hunter's Vision: The Prehistoric Art of Zimbabwe, by Peter Garlake. University of Washington Press, 1995.

The Mind in the Cave: Consciousness and the Origins of Art, by David Lewis-Williams. Thames & Hudson, 2002.

The Riches of Ancient Australia: An Indispensable Guide for Exploring Prehistoric Australia, by Josephine Flood. University of Queensland Press, 2000.

World Rock Art, by Jean Clottes, Guy Bennet (translator). Getty Trust Publications, 2002

ROCK ART WEBSITES

Oregon and Washington

- www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/archaeology.shtml Oregon Department of Transportation Archaeology website
- www.oregon.gov/OPRD/HCD/ARCH/ Oregon State Parks & Recreation Department, Heritage Conservation and Archaeology.
- www.oregonarchaeological.org The Oregon Archaeological Society (OAS).
- www.uoregon.edu/~anthro/ University of Oregon, Department of Anthropology

National

- www.arara.org/ American Rock Art Research Association (ARARA). The oldest rock art association in the world, ARARA was organized to promote research, conservation and education on rock art around the world.
- www.anthro.net Anthro.Net is a database that contains thousands of reviewed web sites and biblio graphic references. An extensive user-friendly search engine.
- www.archaeological.org/ The Archaeological Institute of America (AIA).
- archaeology.la.asu.edu/ Archaeological Research Institute at Arizona State University.
- www.nevadarockart.org/ Nevada Rock Art Foundation.
- www.passportintime.com Passport in Time, the US Department of the Interior, Forest Service volun teer archaeology program.
- www.nps.gov/petr/ Petroglyph National Monument in Albuquerque, New Mexico.
- www.rupestre.net/rockart Rock Art Net. A website that provides a wide variety of information on rock art.
- www.saa.org/ The Society of American Archaeology (SAA.) An excellent resource for educators. They offer up a teachers guide and other educational resources.
- www.scahome.org/ Society for California Archaeology. Offers lesson plans for teachers and an extensive reading list as well as descriptions of archaeological activities happening in California.
- www.utahrockart.org/ Utah Rock Art Research Association.

International

- www.mc2.vicnet.net.au/home/aura/web/index.html The Australian Rock Art Research Association, Inc. Auranet is devoted to the study and preservation of rock art in Australia and throughout the world.
- www.culture.gouv.fr/culture/arcnat/chauvet/en/index.html A virtual tour of the Chauvet Cave in France. Magnificent art dating more than 32,000 before present.
- www.bradshawfoundation.com/clottes/index.html Paleolithic rock art in France by Jean Clottes.
- http://rockart.ncl.ac.uk/ North Umberland England rock art website.

ROCK ART WEBSITES

Museums, parks and research institutions

The museums and historical sites listed below offer archaeological information and tours that may be useful to teachers.

Burke Museum at the University of Washington - www.washington.edu/burkemuseum/educa tion/index.php. On the UW campus at 17th Avenue NE and NE 45th Street.

Clark County Historical Museum - www.cchmuseum.org

1511 Main Street, Vancouver, WA, 98660. Telephone: 360-993-5683.

Columbia Gorge Discovery Center - www.gorgediscovery.org/

5000 Discovery Drive, The Dalles, OR, 97058. Telephone: 541-296-8600

Columbia Gorge Interpretive Center Museum - www.columbiagorge.org/

990 SW Rock Creek Drive, Stevenson, WA, 98648. Telephone: 800-991-2338.

Maryhill Museum of Art - www.maryhillmuseum.org/

35 Maryhill Museum Dr., Goldendale, WA, 98620. Telephone: 509-773-3733.

Oregon High Desert Museum - www.highdesertmuseum.org/

59800 S. Hwy 97, Bend, OR 97002. Telephone: 541-382-4754.

Oregon Historical Society - www.ohs.org

1200 SW Park Avenue, Portland, OR. Telephone: 503-222-1741.

Portland Art Museum - www.pam.org

1219 SW Park Ave, Portland, OR 97205. Telephone:-503-226-2811

Tamastslikt Cultural Insitute - www.tamastslikt.com

72789 Highway 331, Pendleton, OR, 97801. Telephone: 541-966-9748.

Warm Springs Museum -www.warmsprings.com/warmsprings/Recreation__Tourism/Museum/

2189 Highway 26 between Mt Hood and Madras, OR. Telephone: 541-553-3331

University of Oregon Museum of Natural and Cultural History - http://natural-history.uoregon.edu/

1680 East 15th Ave., Eugene, OR, 97403. Telephone: 541-346-3024